

PREDICTION OF FUTURE TREND OF THE  
LONG TERM STREAMFLOW PATTERN IN  
THE CONTEXT OF CLIMATE CHANGE

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## **SUPERVISOR'S DECLARATION**

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Civil Engineering

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## **STUDENT'S DECLARATION**

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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*To my beloved parents and family,*

*Mohd Saad Bin Lateh  
Fauziyah Binti Sahidon,  
Muhammad Suzairi Bin Mohd Saad  
Nurul Zawani Binti Mohd Saad  
Sunil Shanaz Bin Redzuan Perpinder  
Muhammad Haziq Bin Mohd Saad*

*And my pretty niece,  
Maya Daania Binti Sunil Shanaz*

# PREDICTION OF FUTURE TREND OF THE LONG TERM STREAMFLOW PATTERN IN THE CONTEXT OF CLIMATE CHANGE

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## LIST OF SYMBOLS

$R$	Coefficient of Correlation
$t_k$	Temperature reading ( °C )
$u_k$	Quantity of Rainfall ( mm )
$x_k$	Streamflow Estimated

## **LIST OF ABBREVIATIONS**

SDSM	Statistical Downscaling Model
MMD	Malaysian Meteorological Department
DID	Department of Irrigation and Drainage Malaysia
GCM	Global Climate Model
AR5	Assessment Report 5
RCM	Regional Climate Model
MSW	Municipal Solid Waste
DD	Dynamical Downscaling
SD	Statistical Downscaling
NCEP	National Centres Environmental Prediction
RMSE	Root Mean Square Error
ARPE	Average Relative Parameter Error